



# Environmental Assessment Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability



*America's Air Force -- No One Comes Close*  
**Holloman AFB, New Mexico**



*Home of the Fightin' 49ers*

**August 2006**



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#### 14. ABSTRACT

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA). The public and agency scoping process focused the analysis on the following environmental resources: airspace management, noise safety, air quality, physical resources, biological resources, cultural resources, land use, socioeconomics, and environmental justice. The Proposed Action would result in a decrease in aircraft operations and therefore not effect Holloman AFB airspace management, safety or air quality. Off-base land area subjected to a Day/Night Average Sound Levels (Ldn) of 65 decibels (dB) or greater subsonic noise would be reduced as would subsonic noise over White Sands National Monument. Renovation and construction in previously disturbed base areas would result in no significant effects to physical and biological resources. Buildings proposed for renovation or demolition are not on the National Register of Historic Places (NRHP). No long term effects to land use or transportation are anticipated. Short-term regional socioeconomic stimulation is anticipated from renovation and construction. Long-term personnel and population reductions are anticipated from the transformation. Off-base housing demand and secondary employment would be reduced. There would be no disproportionate effects upon minorities or low-income populations or children. Alternative A has the same consequences as the Proposed Action from activities at Holloman AFB. Comments on the Draft EA expressed concerns with the loss of positions at the base, property values, fire risk, and noise. Modern weapon systems require fewer personnel, F-22A training is at high altitudes and would not be expected to cause a change in property values, and altitude restrictions on flare use reduce any potential fire risk. F-22A training in existing airspace would result in minimal changes to subsonic onset rate-adjusted Ldn under the Cowboy, Beak, Talon, and northern portion of WSMR airspaces. Subsonic noise increases of 5 to 10 dB over the southern portion of WSMR and McGregor Range would remain below Ldn 55 dB (potential impacts not expected). Supersonic training would substantially increase sonic booms from 1 to 2 per month to 20 to 25 per month in the populated areas of the Cowboy ATCAA, including 12 to 18 per month over the Mescalero Reservation, and from 5 to 45 per month toward the center of WSMR. The White Sands National Monument Headquarters increases from 5 to approximately 30 per month. Sonic boom overpressure would not pose a health or other risk but could damage windows, rattle shelves, and increase annoyance to residents and long-term visitors from 1 percent to approximately 6 percent highly annoyed toward the center of WSMR and 4 percent under portions of the Cowboy ATCAA. This supersonic activity could result in vibration effects to historic buildings

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The Final Environmental Assessment (EA) consists of this Final EA document and the Draft EA, which must be used together to understand the full perspective of the environmental consequences considered in the analysis of this proposal. All substantive descriptions, data, and analyses presented in the Draft EA are incorporated by reference into this Final EA. To ensure that all interested parties who receive a copy of this Final EA have a copy of the Draft EA, a compact disc (CD) containing both the Draft and Final EA is provided at the back of this document.

- The Executive Summary provides an overview of the Draft and Final EA. It includes a summary of the purpose and need, the Proposed Action and alternatives, environmental consequences by resource, and identifies the No Action Alternative. References cited in the Executive Summary are included in Chapter 6.0 of the Draft EA.
- Chapter 1.0 provides the errata and clarifications to the Draft EA. Errata rectify minor errors found in the Draft EA ranging from misspellings to inserting words or phrases omitted from the Draft EA. Clarifications consist of explanatory information designed to enhance understanding of information in the Draft EA.
- Chapter 2.0 presents written comments received during the public comment period for the Draft EA and the Air Force's responses to substantive comments. A directory is included to locate comments by commentor name.





**Cover Sheet**  
**ENVIRONMENTAL ASSESSMENT**  
**TRANSFORMING THE 49<sup>TH</sup> FIGHTER WING'S COMBAT CAPABILITY**

- a. *Responsible Agency:* United States Air Force (Air Force)
- b. *Proposals and Actions:* The Air Force proposes to transform the 49<sup>th</sup> Fighter Wing (49 FW) at Holloman Air Force Base (AFB) from its F-117A low-observability penetration role to the next generation F-22A with air-to-ground and air superiority capabilities. The Proposed Action is to replace 50 F-117A and associated 14 T-38A aircraft with 36 plus 4 backup F-22A aircraft. This transformation would occur over a period of 3 to 5 years and require 26 renovation and construction improvement projects (on approximately 4 acres of previously disturbed land) with a total cost of \$37 million. Personnel changes would reduce assigned and other personnel by an estimated 321 positions. The Proposed Action includes enhancements to training airspace within 100 nautical miles (nm) of Holloman AFB. The F-22A would routinely fly at supersonic speeds to attain an advantage in attack and defense. F-22A pilots would employ defensive RR-188 (or equivalent) chaff and MJU-10/B (or equivalent) flares during training. Chaff and flare use is proposed over the White Sands Missile Range (WSMR) and McGregor Range. Defensive flare use is also proposed in the Cowboy Air Traffic Control Assigned Airspace (ATCAA), Beak Military Operations Area (MOA)/ATCAAs, and Talon MOA/ATCAAs. Alternative A would transform the 49 FW by replacing the aircraft, renovating and constructing facilities, and transitioning personnel as described for the Proposed Action. Alternative A does not include the airspace enhancements, although some changes to the use of airspace over WSMR would permit supersonic training and chaff and flare use throughout WSMR restricted airspace. No Action at Holloman means no transformation of the 49 FW from F-117A to next generation F-22A aircraft.
- c. *For Additional Information:* Holloman AFB Public Affairs. Telephone inquiries may be made to Holloman AFB Public Affairs at 505-572-5406.
- d. *Designation:* Environmental Assessment
- e. *Abstract:* This EA has been prepared in accordance with the National Environmental Policy Act (NEPA). The public and agency scoping process focused the analysis on the following environmental resources: airspace management, noise, safety, air quality, physical resources, biological resources, cultural resources, land use, socioeconomics, and environmental justice. The Proposed Action would result in a decrease in aircraft operations and therefore not effect Holloman AFB airspace management, safety or air quality. Off-base land area subjected to a Day/Night Average Sound Levels ( $L_{dn}$ ) of 65 decibels (dB) or greater subsonic noise would be reduced as would subsonic noise over White Sands National Monument. Renovation and construction in previously disturbed base areas would result in no significant effects to physical and biological resources. Buildings proposed for renovation or demolition are not on the National Register of Historic Places (NRHP). No long term effects to land use or transportation are anticipated. Short-term regional socioeconomic stimulation is anticipated from renovation and construction. Long-term personnel and population reductions are anticipated from the transformation. Off-base housing demand and secondary employment would be reduced. There would be no disproportionate effects upon minorities or low-income populations or children. Alternative A has the same consequences as the Proposed Action from activities at Holloman AFB.

Comments on the Draft EA expressed concerns with the loss of positions at the base, property values, fire risk, and noise. Modern weapon systems require fewer personnel, F-22A training is at high altitudes and would not be expected to cause a change in property values, and altitude restrictions on flare use reduce any potential fire risk. F-22A training in existing airspace would result in minimal changes to subsonic onset rate-adjusted  $L_{dn}$  under the Cowboy, Beak, Talon, and northern portion of WSMR airspaces. Subsonic noise increases of 5 to 10 dB over the southern portion of WSMR and McGregor Range would remain below  $L_{dn}$  55 dB (potential impacts not expected). Supersonic training would substantially increase sonic booms from 1 to 2 per month to 20 to 25 per month in the populated areas of the Cowboy ATCAA, including 12 to 18 per month over the Mescalero Reservation, and from 5 to 45 per month toward the center of WSMR. The White Sands National Monument Headquarters increases from 5 to approximately 30 per month. Sonic boom overpressure would not pose a health or other risk but could damage windows, rattle shelves, and increase annoyance to residents and long-term visitors from 1 percent to approximately 6 percent highly annoyed toward the center of WSMR and 4 percent under portions of the Cowboy ATCAA. This supersonic activity could result in vibration effects to historic buildings, temporary effects to some wildlife, and annoyance to humans.

Alternative A would have 10 to 20 booms per month on the western edge of Cowboy ATCAA and no change in the majority of the Cowboy ATCAA because supersonic training would be concentrated in WSMR. WSMR sonic booms increase from 5 per month to up to 80 per month toward the center of the airspace. Sonic booms over White Sands National Monument Headquarters would increase from 5 to approximately 40 per month. The percent of highly annoyed individuals is expected to increase from an existing 1 percent to a projected 8 percent.

The No Action Alternative has the potential to reduce the capabilities of the 49 FW, reduce the capabilities for United States required low-observability air-to-ground missions, and increase the future costs of deploying F-22A aircraft.



## FINDING OF NO SIGNIFICANT IMPACT

**NAME OF PROPOSED ACTION:** Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability, Holloman Air Force Base (AFB), New Mexico.

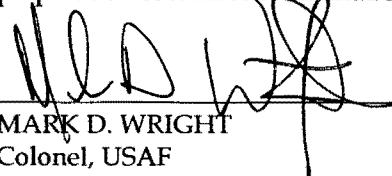
**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:** The United States Air Force (Air Force) proposes to transform the 49<sup>th</sup> Fighter Wing (49 FW) from its F-117A low-observability penetration role to the next generation F-22A. The transformation from F-117A to F-22A aircraft would replace existing low-observability fighter assets with the most advanced capabilities and enable the Air Force to achieve rapid worldwide objectives. Holloman AFB is the only Air Force base with F-117A aircraft and provides the infrastructure, including facilities, management experience, and training airspace to support the F-22A aircraft. Over a period of 3 to 5 years, 36 primary and 4 backup F-22A would replace 50 F-117A and associated 14 T-38A trainer aircraft. A total of 26 renovation, construction, or infrastructure improvement projects with a total cost of \$37 million would occur on 4 acres of previously disturbed Holloman AFB land. Improvements in maintenance and other assignments would reduce total personnel assigned to or working at Holloman AFB by an estimated 321 positions.

The F-22A would routinely fly at supersonic speeds to attain an advantage in attack and defense for air-to-ground and air-to-air missions. Airspace enhancements within 100 nautical miles (nm) of Holloman AFB would permit the F-22A to realistically train and deploy RR-188 (or equivalent) chaff and MJU-10/B (or equivalent) defensive flares. Proposed airspace enhancements would create Air Traffic Control Assigned Airspace (ATCAAs) above 18,000 feet mean sea level (MSL) (Figure ES-1). To manage potential sonic boom impacts on the public, 49 FW will establish guidance for supersonic operations in the Cowboy ATCAA. Chaff and flare use is proposed over White Sands Missile Range (WSMR) and McGregor Range. Defensive flare use is also proposed in the Cowboy and Beak ATCAAs, and Talon Military Operations Area (MOA)/ATCAA above 2,000 feet above ground level (AGL).

**ALTERNATIVES TO THE PROPOSED ACTION:** Alternative A would transform the 49 FW by replacing the F-117A and T-38A aircraft with F-22A aircraft, renovating and constructing facilities, and transitioning personnel as described for the Proposed Action, but would not include the airspace enhancements described in the Proposed Action and would permit supersonic training and chaff and flare use throughout WSMR only. Under the No Action Alternative, transformation of the 49 FW from F-117A to next generation F-22A aircraft would not occur. The No Action Alternative would continue F-117A and T-38A aircraft at Holloman AFB.

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES:** The public and agency scoping process focused the analysis on the following environmental resources: airspace management, noise, safety, air quality, physical resources, biological resources, cultural resources, land use, socioeconomics, and environmental justice. Details of the environmental consequences can be found in the Draft Environmental Assessment which is incorporated by reference in this Final Environmental Assessment. A summary of the analyses is presented in the Executive Summary.

**CONCLUSION:** Based on information and analysis presented in the Final Environmental Assessment conducted in accordance with the requirements of the National Environmental Policy Act, the Council on Environmental Quality regulations, and implementing regulations set forth in 32 CFR 989 (Environmental Impact Analysis Process), as amended, and review of the public and agency comments submitted during the 30-day public comment period, I conclude that implementation of the Proposed Action would not result in significant impacts to the quality of the human or natural environment. For these reasons, a finding of no significant impact (FONSI) is made and preparation of an Environmental Impact Statement (EIS) is not warranted.

  
MARK D. WRIGHT  
Colonel, USAF  
Deputy Director of Installations for Civil Engineers (A7)

25 Aug 2006  
Date



**ENVIRONMENTAL ASSESSMENT  
TRANSFORMING THE 49<sup>TH</sup> FIGHTER WING'S  
COMBAT CAPABILITY  
HOLLOMAN AIR FORCE BASE, NEW MEXICO**

**AUGUST 2006**





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## **EXECUTIVE SUMMARY**

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The overall mission of the United States Air Force (Air Force) is defense of the United States (U.S.) and fulfillment of the directives of the President and the Secretary of Defense. The transformation of the 49<sup>th</sup> FW (49 FW) at Holloman Air Force Base (AFB) would position the 49 FW to rapidly respond to these directives with a low-observability precision penetration fighter. The transformation from F-117A to F-22A aircraft would replace existing low-observability fighter assets with the most advanced capabilities and enable the Air Force to achieve rapid worldwide objectives. Holloman AFB is the only U.S. base with F-117A aircraft and all facilities to handle the F-117A. Holloman AFB provides the infrastructure, including facilities, management experience, and training airspace to support the next generation precision penetration F-22A aircraft.

### **PROPOSED ACTION**

The Air Force proposes to transform the 49 FW from its F-117A low-observability penetration role to the next generation F-22A with multiple capabilities that exceed those of the F-117A. The proposal is to replace 50 F-117A and associated 14 T-38A trainer aircraft with two squadrons of F-22A aircraft. Each F-22A squadron consists of 18 primary assigned aircraft (PAI) and two backup aircraft inventory (BAI). With the retirement of the F-117A and supporting T-38A aircraft, Holloman AFB has the capabilities and facilities to support the operational F-22A aircraft in meeting national defense objectives. This transformation would occur over a period of approximately 3 to 5 years and require a total of 26 renovation, construction, or infrastructure improvement projects with a total cost of \$37 million. New additions and buildings on 4 acres of previously disturbed land add approximately 37,600 square feet of constructed space at Holloman AFB. Assigned personnel changes and associated revisions in maintenance would reduce total personnel assigned to or working at Holloman AFB by an estimated 321 positions.

F-22A training would include air-to-ground training similar to that performed by the F-117A plus air-to-air training associated with an air superiority fighter. Operational requirements and performance characteristics of the F-22A dictate that routine training would occur within 100 nautical miles (nm) of Holloman AFB. This training would occur in restricted airspace, Military Operations Areas (MOAs) and Air Traffic Control Assigned Airspaces (ATCAAs). The F-22A would routinely fly at supersonic speeds to attain an advantage in attack and defense. The F-22A would train to use its speed, low observability, and/or defense countermeasures to penetrate enemy defenses and evade simulated adversary weapons targeted at the aircraft.

The Proposed Action includes enhancements to the airspace within 100 nm of Holloman AFB that would improve the training airspace for F-22A missions. The Proposed Action airspace enhancements are presented on Figure ES-1. For the purpose of this Environmental Assessment (EA), White Sands Missile Range (WSMR) is defined as the restricted airspace R-5107 (series) and R-5111 A&B. Defensive chaff and flares are used to break radar contact or decoy a heat-seeking missile away from a targeted aircraft. F-22A pilots need to train as they will fight and deploy defensive RR-188 (or equivalent) chaff and MJU-10/B (or equivalent) flares during training. Chaff and flare use is proposed over WSMR and McGregor Ranges. Defensive flare use is also proposed in the Cowboy ATCAA, Beak MOA/ATCAAs, and Talon MOA/ATCAAs. These airspace enhancements and ability to use defensive countermeasures would diversify F-22A training for realistic combat conditions.





## **ALTERNATIVE A**

Alternative A would transform the 49 FW by replacing the F-117A and T-38A aircraft with F-22A aircraft, renovating and constructing facilities, and transitioning personnel as described for the Proposed Action. Alternative A does not include the airspace enhancements described in the Proposed Action. Alternative A includes some changes to permit supersonic training and chaff and flare use throughout WSMR.

Alternative A would provide minimum training capabilities for the F-22A aircraft but would not provide multiple realistic training scenarios representative of combat situations.

## **NO ACTION ALTERNATIVE**

No Action at Holloman means no transformation of the 49 FW from F-117A to next generation F-22A aircraft. Analysis of the No Action Alternative provides a benchmark and permits decision makers to compare the magnitude of environmental effects of the Proposed Action or Alternative A with the No Action Alternative. No Action would not include airspace changes and would continue F-117A and T-38A aircraft at Holloman AFB until they are retired. The No Action Alternative has the potential to reduce the capabilities of the 49 FW, reduce the capabilities for U.S. required low-observability air-to-ground missions, and increase the future costs of deploying F-22A aircraft.

## **DISTRIBUTION AND REVIEW OF THE DRAFT EA**

The Draft EA was distributed for public and agency review from 23 June through 24 July 2006. Eight letters and communications were received by the Air Force as a result of this review. Of specific concern were the loss of positions at the base, the potential for training effects on property values, and noise (sonic booms). These concerns are summarized below and addressed in this Final EA response to comments section.

## **ENVIRONMENTAL CONSEQUENCES**

The public and agency scoping process focused the analysis on the following environmental resources: airspace management, noise, safety, air quality, physical resources, biological resources, cultural resources, land use, socioeconomic, and environmental justice. Each resource is discussed below for environmental consequences to base and airspace for the Proposed Action, Alternative A, and the No Action Alternative.

### ***AIRSPACE MANAGEMENT AND AIR TRAFFIC CONTROL***

**Base.** *Proposed Action* - Holloman AFB Class C and D airspace would not be impacted by the transition to F-22A sorties. Daily operations would decrease by approximately 11.5 percent compared to existing conditions. The F-22A's greater power permits more rapid acceleration away from the base environs and reduces the time in the vicinity of the airfield.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change in use of Holloman AFB facilities by F-117A and T-38A aircraft.

**Airspace.** *Proposed Action* - Connecting ATCAAs with a floor of 18,000 feet above mean sea level (MSL) would permit civil aircraft to fly below military training aircraft. Lowering the floor of Cowboy ATCAA from 30,000 feet to 23,000 feet MSL would not affect civil aircraft, including those using Sierra Blanca Airport which is within the existing Beak MOA. Airspace recreational activities in or near the Lincoln National Forest or the Sacramento Mountains, including hang gliding, would not be affected. Combat coded chaff used for defensive countermeasures could have a significant effect on Federal Aviation Administration (FAA) radars, so this analysis assumes RR-188 training chaff or its equivalent is modified for use during F-22A training. Raising the ceiling of Talon ATCAAs would require scheduling and coordination between Air Force and FAA. The Proposed Action in conjunction with existing and proposed Army and other missions at WSMR could result in restrictions in some training and missions within the airspace. Scheduling of WSMR airspace would continue to be coordinated by Army and Air Force airspace managers.



QUESTIONS AT SCOPING MEETINGS INCLUDED WHETHER POTENTIAL COMMERCIAL SERVICE AT THE SIERRA BLANCA AIRPORT COULD BE AFFECTED BY ENHANCEMENTS TO THE BEAK OR COWBOY ATCAAS. THE BEAK AND COWBOY ATCAA ALTITUDE CHANGES SHOULD HAVE NO EFFECT ON COMMERCIAL OR GENERAL AVIATION.

*Alternative A* - Concentration of nearly all F-22A training over WSMR could substantially affect airspace management and scheduling among competing users of WSMR.

*No Action Alternative* - No change from existing conditions.

## ***NOISE***

**Base.** *Proposed Action* - F-22A engines are more powerful and louder than F-117A or T-38A engines. Fewer F-22A operations during environmental night would reduce the night noise penalty in environmental noise analysis. The F-22A's ability to rapidly climb from the base decreases noise levels on-base and lowers noise levels off-base near the airfield when compared to existing levels from individual events. Base housing and other on-base facilities could experience higher noise levels from individual noise events. Construction noise would be minimal and within existing airfield noise contours.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change in aircraft and no construction associated with 49 FW transformation.

**Airspace.** *Proposed Action* - Subsonic onset rate adjusted day-night average sound level ( $L_{dnmr}$ ) to have little or no discernible difference under the Cowboy, Beak, Talon, and northern portion of WSMR airspaces. Subsonic noise over the southern portion of WSMR would noticeably increase from below 25.8 to 47.9  $L_{dnmr}$  and under McGregor Range from below 25 to 43.6  $L_{dnmr}$ . Subsonic noise level of  $L_{dn}$  55 decibels (dB) have been identified by the United States Environmental Protection Agency (USEPA) as a threshold below which adverse impacts are not expected to occur. Supersonic training would increase sonic booms from 1-2 per month to 15-30 per month under the Cowboy ATCAA and from 8-10 per month to 45 per month toward the center of WSMR decreasing to 5-8 per month in the northern part of El Paso and Fort Bliss. The average sonic boom overpressure for this type of activity is approximately 1 pound per square foot (psf) and would not pose a health or other risk. Sonic booms could damage glass, plaster, or other parts of structures and increase annoyance to residents and long-term visitors from 1 percent highly annoyed to approximately 6 percent highly annoyed under WSMR and 1 to 4 percent under the Cowboy ATCAA. In addition to annoyance, sonic booms have the potential to damage structures. For the magnitude of boom associated with the Proposed Action, the probability of structural damage is extremely small, but is a concern nonetheless. At 1 psf, the probability of a window breaking ranges from one in a billion (Sutherland 1990) to one in a million (Hershey and Higgins 1976). At 10 psf, the probability of breakage is between one in a hundred and one in a thousand (Haber and Nakaki 1989). In the unlikely event of damage attributable to a sonic boom, the Air Force has established claims procedures that begin by contacting Holloman AFB Public Affairs.



THE SPENCER THEATER NEAR ALTO HAS 1-INCH THICK GLASS THAT IS DESIGNED TO WITHSTAND OVERPRESSURES SUBSTANTIALLY GREATER THAN THOSE CREATED BY SONIC BOOMS.

*Alternative A* - Subsonic  $L_{dnmr}$  would have little or no discernible difference under the Cowboy, Beak, and Talon airspaces. Subsonic  $L_{dnmr}$  would noticeably increase under all of WSMR from the existing 35-50 dB to a projected 50-55 dB. Subsonic noise conditions below 55 dB are identified by USEPA as a level below which potential impacts are not expected to occur. Increased sonic booms from an existing 8-10 to a projected 80 per month toward the center of WSMR could increase the percent of highly annoyed individuals from an existing 1 percent to a projected 12 percent. This level of sonic booms could impact residents, workers, recreationists, or other activities under WSMR. The vibration from a regular, large number of sonic booms could affect adobe structures at the White Sands National Monument headquarters. Most of the Cowboy ATCAA would continue to have an estimated 1-2 sonic booms per month except the western edge of the Cowboy ATCAA, which could have 10-20 sonic booms per month. Northern El Paso and Fort Bliss could experience 10-15 booms per month.

*No Action Alternative* - No change from existing 1-2 booms per month under Cowboy ATCAA and existing 8-10 per month on WSMR.

## ***SAFETY***

**Base. Proposed Action** - No change is projected in off-base safety conditions or personnel safety. Bird-aircraft strike hazard (BASH) would be somewhat lessened because the F-22A attains altitude more rapidly and spends less time where species fly at lower altitudes. Training ordnance use is substantially less for the F-22A than for the F-117A. The F-22A would use defensive chaff and flares. Although F-4's and F-15's previously assigned to the 49 FW used chaff and flares, they have not been used by the wing-assigned aircraft during the last 14 years. Other Holloman-based aircraft have used, and continue to use, both chaff and flares. Personnel are trained and facilities are adequate to handle proposed levels of ordnance, chaff, and flares. The Class A accident potential risk has not been calculated for the F-22A. F-22A improved electronics and maintenance are expected to result in long-term Class A accident rate comparable to that of the similarly sized F-15C aircraft.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - Continuation of current BASH, ordnance, and other safety conditions.

**Airspace. Proposed Action** - No substantive change in or impacts are expected for flight, ground, or other safety aspects. The F-22A would not use Military Training Routes (MTRs) for low level navigation training. Enhanced F-22A electronics substantially improve situational awareness of other aircraft in the airspace. Both participating and non-participating aircraft in a MOA or ATCAA are responsible for applying see-and-avoid safety measures. Deployment of RR-188 or equivalent chaff over WSMR would not be expected to interfere with FAA radar. Restricting flare use during periods above high fire danger and altitude restrictions of 2,000 feet above ground level (AGL) for flare deployment, providing for a 1,600 foot buffer for flare burnout, reduces any potential for fire risk. Residual materials from chaff or flare deployment include up to 2-inch by 2-inch plastic or nylon pieces and up to 4-inch by 13-inch aluminum-coated mylar wrappings. These pieces would not affect safety or biological resources, but, if found and identified by a resident, rancher, or recreationist, the individual could be annoyed.

*Alternative A* - Same as Proposed Action, except chaff and flare use restricted to WSMR.

*No Action Alternative* - No change from existing training by F-117A and T-38A aircraft. No change in use of chaff and flares in training airspace.

## ***AIR QUALITY***

**Base. Proposed Action** - The Alamogordo area is in air quality attainment for all criteria pollutants. Temporary construction emissions would produce localized short-term elevated air pollutant concentrations. Local air quality or visibility would not be significantly affected. No change is projected to air quality within the Alamogordo area and no conformity determination is required.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No renovation or new construction and no change from current emissions.

**Airspace.** *Proposed Action* - Areas under the training airspace are in air quality attainment. Change in training aircraft would not affect air quality under airspace. Any emissions would be dispersed and not measurably affect air quality or visibility in any Class 1 area.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change in training aircraft. No effects on air quality.

## **PHYSICAL RESOURCES**

**Base.** *Proposed Action* - On-base renovation and construction would occur on four previously disturbed acres. National Pollutant Discharge Elimination System (NPDES) storm water permits and the site specific Storm Water Pollution Prevention Plan (SWPPP) would be updated with best management practices (BMPs). Erosion or off-site sedimentation would be negligible. Existing hazardous materials facilities support low-observability coatings of F-117A and F-22A aircraft. No significant effects would occur to earth or water resources, hazardous materials, hazardous wastes, or the Environmental Restoration Program (ERP).

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No ground-disturbing activities. Hazardous wastes would be generated at current levels.



ONE COMMENTOR AT SCOPING EXPRESSED CONCERN WITH CHAFF AND FLARE MATERIALS BEING DEPOSITED IN NEW MEXICO WATER BODIES. CHAFF QUICKLY DEGRADES TO BECOME INDISTINGUISHABLE FROM AMBIENT SOILS AND INERT PLASTIC END CAPS AND SLIDER ASSEMBLIES WOULD NOT BE CONCENTRATED IN ANY AREA WHERE THEY COULD AFFECT WATER RESOURCES.

**Airspace.** *Proposed Action* - No construction would occur under the airspace outside the base. An increase in sonic booms and associated vibration would not be expected to affect soil, seasonal snow packs, or geologic formations. Chaff fibers thinner than a human hair, three to six 2-inch by 4-inch mylar pieces, and two 1-inch by 1-inch plastic pieces fall to the ground with each chaff bundle deployed. Chaff on the ground rapidly breaks down to silica and aluminum particles and becomes indistinguishable from native soils. Inert plastic pieces are not expected to affect soils or water. Each MJU-10/B defensive flare would result in two 2-inch by 2-inch plastic pieces, one 1-inch by 1-inch by 2-inch Safe & Initiation (S&I) device, and one up to 4-inch by 12-inch aluminum-coated mylar wrapping falling to the ground. Flare use is restricted to a minimum altitude of 2,000 feet AGL and flares would not be deployed in the airspace during periods of very high or extreme fire danger, thus reducing any risk of fire. Plastic or mylar pieces that result from chaff or flare deployment would not be in concentrations that could affect soil or water resources.

*Alternative A* - Same as Proposed Action, except that chaff and flares would only be deployed in WSMR and supersonic training would be primarily concentrated in WSMR.

*No Action Alternative* - No change from existing conditions. F-117A and T-38A do not use chaff or flares.



## **BIOLOGICAL RESOURCES**

**Base. Proposed Action** - Renovation or construction would occur on previously disturbed ground and would not be expected to impact sensitive biological species. The F-22A's ability to rapidly climb above the normal altitude of migrating waterfowl and other birds should somewhat reduce BASH potential. Noise contours on-base would be comparable to existing conditions, and birds and mammals associated with the base and its environs are habituated and are not expected to be adversely affected.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change from existing conditions.

**Airspace. Proposed Action** - Subsonic noise would be somewhat greater than existing conditions under the southern portion of WSMR airspace and on McGregor Range. This subsonic noise change is not expected to affect wildlife. The increase in sonic booms may startle some animals. Studies have demonstrated that, even within species, individuals can vary widely in reactions. Wildlife under the airspaces have previously experienced sonic booms at different levels and are expected to become habituated to additional thunder-like sounds. An estimated 45 sonic booms per month under the airspace is not expected to significantly impact wildlife after habituation occurs. Even after habituation, a sonic boom, as with thunder, could startle high strung or other animals in a pen or other restricted area. The increase in supersonic flight may affect, but is not likely to adversely affect, Mexican spotted owl, northern aplomado falcon, or bald eagle. Todsens's pennyroyal is not in an area where ground disturbance would occur. Chaff and flare use would not be expected to adversely affect biological resources. Plastic or nylon pieces are inert and aluminum-coated mylar wrappings are expected to degrade from exposure to sunlight and have not been found to cause a threat to native or domestic animals. Residual pieces of chaff or flares would not be in concentrations that could affect water resources used by native or domestic animals.

*Alternative A* - Subsonic noise effect would be similar to those described for Proposed Action. Sonic boom effects are not expected under most of the Cowboy ATCAA. Sonic booms of up to 80 per month toward the center of WSMR could increase domestic animal and wildlife reactions among unusually sensitive or non-habituated animals.

*No Action Alternative* - No change from existing conditions, with an estimated 1 to 2 sonic booms per month under the Cowboy ATCAA and some use of chaff and flares over ranges.



NATIVE SPECIES THAT COEXIST WITH HUMAN ACTIVITY ON AND NEAR HOLLOMAN AFB INCLUDE THE CACTUS WREN ON WHITE SANDS NATIONAL MONUMENT.



ELK AND OTHER GAME ANIMALS ARE NOT EXPECTED TO BE AFFECTED BY APPROXIMATELY 20 SONIC BOOMS PER MONTH OVER THE SACRAMENTO MOUNTAINS.

## **CULTURAL RESOURCES**

**Base. Proposed Action** – None of the buildings proposed for renovation or demolition are historic structures. White Sands National Monument, located adjacent to Holloman AFB, is expected to have less subsonic noise exposure due to F-22A reduced off-base 65 dB noise contours. Subsonic noise is not expected to significantly affect historic properties.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - Continued existing noise contours that extend into the White Sands National Monument.

**Airspace. Proposed Action** - Increase in sonic booms could cause vibrations that could affect historic properties under the airspace, including within White Sands National Monument, Holloman AFB, and WSMR. Vibration studies have found potential detrimental effect upon adobe structures near highways. Historic structures in good condition would not be expected to be impacted, but structures or windows in poor condition could be affected by sonic boom vibration. Approximately 12 to 18 sonic booms per month are projected on the Mescalero Apache Reservation and could result in increased annoyance to Native Americans and others. Mescalero representatives, in meetings with Air Force representatives, expressed concern about sonic booms that would likely be noticed by residents or long-term visitors to the reservation or reservation facilities. The reservation economy is based upon gaming, tourism, and natural resources. The Mescalero also expressed concern that these economic activities could also be affected by an economic downturn at Alamogordo or at Holloman AFB.

*Alternative A* - Effects generally similar to those described for the Proposed Action except there would be no increased supersonic activity over the Mescalero Apache Reservation. The potential for up to 40 sonic booms per month over portions of the White Sands National Monument headquarters and other historic properties could result in vibration effects upon these historic resources. Structures in disrepair or with fragile windows could be adversely affected by the increased sonic booms.

*No Action Alternative* - No change from existing conditions.

## **LAND USE**

**Base. Proposed Action** – On-base renovation and construction is consistent with the base general plan. Day/night average sound levels over base housing and other portions of the base are projected to decrease. Off-base areas affected by  $L_{dn}$  65 dB would be reduced. Potential increased traffic congestion during construction would drop below current conditions after 49



WHITE SANDS NATIONAL MONUMENT HEADQUARTERS COMPLEX IS LOCATED SOUTHWEST OF HOLLOMAN AFB AND IS UNDER AN AIRSPACE AVOIDANCE AREA. SUBSONIC NOISE LEVELS AT THE MONUMENT HEADQUARTERS ARE EXPECTED TO DECLINE AND SONIC BOOMS INCREASE WITH THE PROPOSED 49 FW TRANSFORMATION.



THE MESCALERO APACHE RESERVATION CHURCH IS A STONE STRUCTURE UNDERGOING RENOVATION. STRUCTURES IN GOOD CONDITION ARE NOT EXPECTED TO BE SIGNIFICANTLY IMPACTED BY 12 TO 18 SONIC BOOMS PER MONTH THAT COULD VARY IN INTENSITY FROM A SHARP THUNDERCLAP TO DISTANT THUNDER.

FW transformation. Land uses near the base, consisting of ranching with light industry or commercial between Holloman AFB and Alamogordo, are not expected to be impacted by F-22A overflights.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change to noise environment on-base and environs. No construction or personnel changes. No changes in traffic.

**Airspace.** *Proposed Action* - Increased sonic booms are expected to occur over workplaces, residential, recreational, hunting, and fishing areas under all airspaces. Sonic booms would be noticed by individuals who live or spend extensive time under the airspaces. The largest numbers of residences are located under the Cowboy ATCAA, including the city of Alamogordo, the villages of La Luz, Tularosa, Carrizozo, Capitan, Ruidoso, Ruidoso Downs, Cloudcroft, and Mescalero, low-density rural settlements in the Sacramento Mountains, and other communities. Communities under the Cowboy ATCAA would experience increases from 1-2 to 5-30 booms per month. The frequency of sonic booms would not be expected to affect land use or land use patterns, ownership, or management. Overpressure from sonic booms should not be greater than high wind pressure on facilities such as ski lift gondolas, gaming locations, or the Spencer Theater. Sonic booms over WSMR that could be generated at lower altitudes have a greater potential for higher overpressures. Some sonic booms could have sufficient pressure to damage windows in poor condition or to vibrate loose objects off of shelves.

*Alternative A* - Little or no change is expected in sonic booms under the majority of the Cowboy ATCAA when compared with existing conditions. Alamogordo would experience 5-10 and northern El Paso 10-15 sonic booms per month. There may be potential effects on users of land or workers on land under WSMR from 80 sonic booms per month. Management practices at the National Monument may be affected by changes in the noise environment. In case of damage, the Air Force has established procedures for handling damage claims, which begin by contacting the Holloman AFB Public Affairs Office.

*No Action Alternative* - No change from existing conditions with a continued presence of military aircraft training during day and night within the airspace.

## ***SOCIOECONOMICS***

**Base.** *Proposed Action* - The 26 projects and \$37 million in construction costs would generate 175 construction jobs and \$9.4 million in direct earnings. Socioeconomic total consequences of renovation and construction are estimated to be \$54.1 million in total output and 330 total jobs. The Alamogordo existing work force should be adequate to supply needed personnel. Transformation of the 49 FW would reduce authorized and other positions at Holloman AFB by 321 jobs. This assigned personnel reduction of 5.3 percent, with dependents, would produce an anticipated population decline of 674 persons, or approximately 2 percent of Alamogordo's population. Off-base housing demand would be reduced by approximately 227 off-base units in the Alamogordo area. Secondary employment is projected to be reduced by approximately 99 positions. Depending upon schedule of withdrawal of F-117A and T-38A, renovation and construction, and introduction of F-22A aircraft, socioeconomic effects upon Alamogordo could

proportionately result from a decline of base authorized personnel of up to approximately 25 percent before the authorized personnel stabilized at approximately 5.3 percent below existing authorizations when the 49 FW transformation is complete.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - Base personnel will remain at levels necessary to support Holloman AFB's mission.

**Airspace.** *Proposed Action* - F-22A training would be at altitudes that would not be expected to affect property values on private or public property under the existing or proposed expanded training airspace. Projected increase in sonic booms under Cowboy ATCAA residential and tourist areas may annoy residents or long-term visitors to the area. An estimated up to 15-30 sonic booms per month would not be expected to significantly affect general activities under the Cowboy ATCAA. Specific economic activities associated with horse races at Ruidoso Downs or other recreational activities, including hunting or seeking solitude, could be affected by the number of sonic booms and by the proposed loss of 321 jobs.

Lumber, recreational, and gaming industries in the Sacramento Mountains are partially supported by an economically viable Alamogordo and Holloman AFB and could be affected by an economic downturn at those locations. Chaff and flare residual materials would not be expected to affect social or economic activities but could result in annoyance if found in a remote or unexpected location.



THE MESCALERO APACHE RESERVATION ECONOMY IS PRIMARILY BASED ON RECREATION AND TIMBER PRODUCTS.

*Alternative A* - Little or no change in sonic booms is projected under the Cowboy ATCAA except along the western edge where sonic booms could increase to 10-20 per month. Visitors and employees at White Sands National Monument (35 to 40 booms per month), residents and employees at Holloman AFB (30 to 40 booms per month), workers at WSMR (up to 80 booms per month), and residents of northern El Paso and Fort Bliss (10 to 15 booms per month) would likely be affected by the sonic booms. Overall socioeconomic conditions are expected to be the same as under the Proposed Action.

*No Action Alternative* - No change from existing conditions as long as F-117A and T-38A aircraft remain at Holloman AFB.

## ***ENVIRONMENTAL JUSTICE***

**Base.** *Proposed Action* - Minority and low income populations in the Alamogordo area are comparable to those of the state of New Mexico. There would be no disproportionate impact upon minority or low-income populations or upon children.

*Alternative A* - Same as Proposed Action.

*No Action Alternative* - No change from existing conditions.



**Airspace.** *Proposed Action* – The Mescalero Apache Reservation represents a high concentration of minorities under the training airspace. Persons living on the reservation and others under the Cowboy ATCAA could be annoyed by 15-30 sonic booms per month. Sonic booms would not be expected to damage health or other environmental resources and would almost all occur during daylight or prior to 10:00 p.m. at night. Both native and domestic species on the reservation and in the Sacramento Mountains are habituated to thunder and in the past have experienced sonic booms. Game species such as elk and mule deer that contribute to the Mescalero economy would be expected to habituate, although an inopportune sonic boom could annoy a hunter. Sonic booms comparable to intense or distant thunder would be distributed throughout the airspace over all communities and no disproportionately high or adverse impacts on minority or low income communities would be expected. No disproportionate health or safety risks would be expected to affect children. A reduction in base and Alamogordo economic activity would have an unquantified but expectably adverse effect on the reservation tourism and gaming economy.

*Alternative A* - Supersonic activity would be concentrated in WSMR and sonic booms would be experienced primarily on WSMR and in nearby areas. There would be no substantive change in sonic booms under most of the Cowboy ATCAA compared with existing conditions and no change in sonic booms over the Mescalero Apache Reservation. An increase in sonic booms from 1-2 per month to 10-20 per month on the western edge of Cowboy ATCAA or northern El Paso and Fort Bliss is not expected to disproportionately affect minority or low income communities or children. An estimated 35-40 sonic booms per month over White Sands National Monument and 30-40 over Holloman AFB would not be expected to disproportionately affect minority, low-income populations, or children.

*No Action Alternative* - No change from existing conditions.



## **1.0 ERRATA, CLARIFICATIONS, AND CORRECTIONS**

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This chapter contains clarifications and corrections in accordance with 40 Code of Federal Regulations (CFR) 1503.4(c). Neither the clarifications nor the corrections alter the conclusions presented in the Draft Environmental Assessment (EA) regarding environmental consequences. The corrections and clarifications form the substance of Chapter 1.0 of this Final EA. Errata rectify minor errors found in the Draft EA, ranging from correcting spellings to inserting words or phrases inadvertently omitted from the Draft EA. Clarifications consist of explanatory information designed to enhance understanding of information in the Draft EA. These clarifications do not represent substantive changes to the analysis or findings in the Draft EA.

### **1.1 ORGANIZATION OF CLARIFICATIONS AND CORRECTIONS**

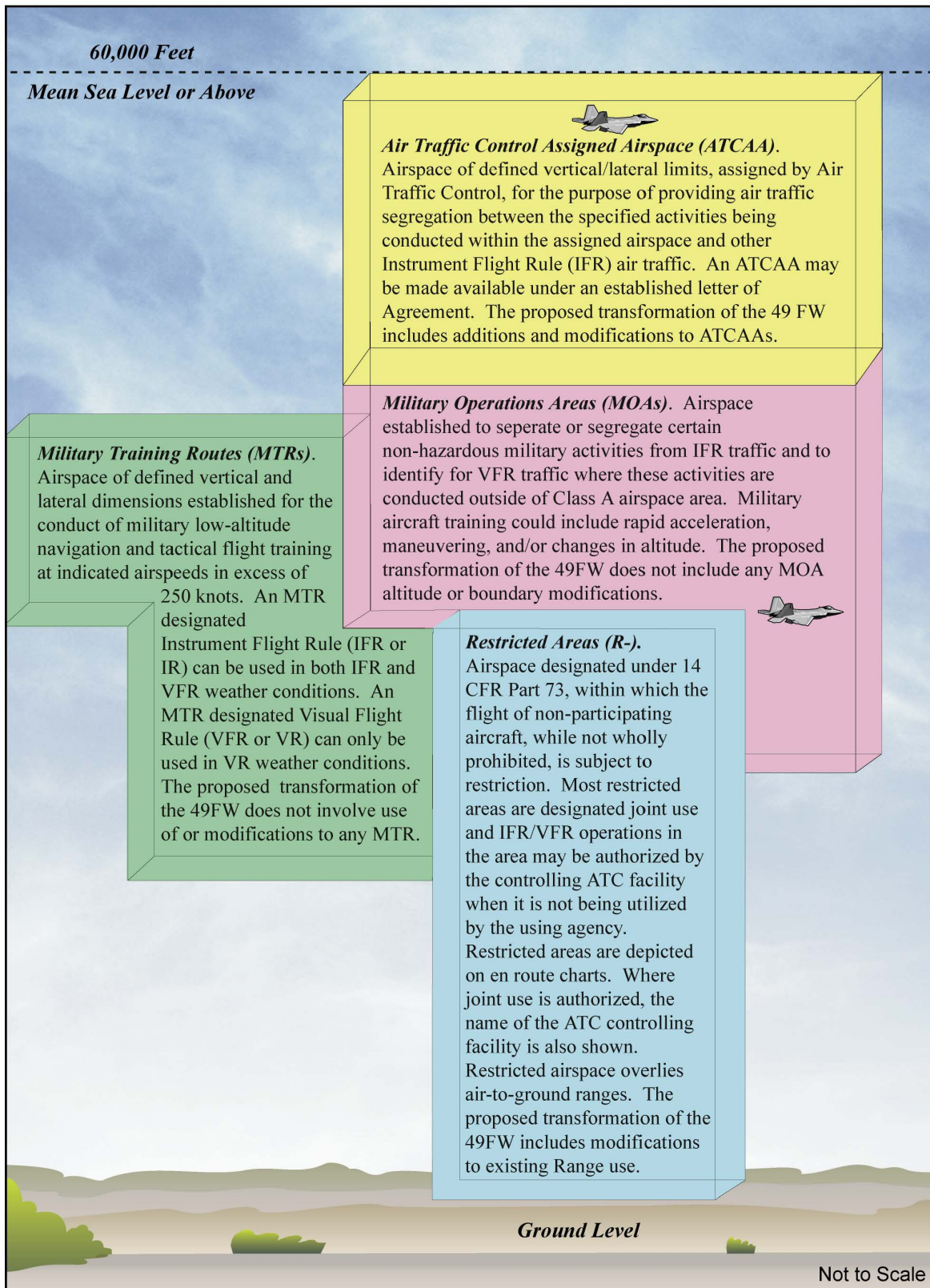
To assist the reader, organization of this chapter follows the organization of the Draft EA. The corrections and clarifications first address Chapter 1.0 of the Draft EA and then progress through the remainder of the chapters and appendices that were included in the Draft EA. Those sections of the Draft EA not requiring any changes or clarifications have not been included in the list of errata.

### **1.2 FINDING CLARIFICATIONS AND CORRECTIONS**

Each correction or clarification is listed according to its page, paragraph, and sentence in the Draft EA. You will need a copy of the Draft EA to accompany your review of this Final EA. To ensure that all interested parties who receive a copy of this Final EA have a copy of the Draft EA, we have included a compact disc (CD) containing both the Draft EA and this Final EA with each printed copy of the Final EA.

## Clarifications and Corrections

DRAFT EA			
<i>Errata Number</i>	<i>Page Number</i>	<i>Location</i>	<i>Errata</i>
<b>FONSI</b>			
	3	The paragraph starting “Land Use. On-base...”	<u>3<sup>rd</sup> sentence, replace Carriozo with: “Carrizozo”</u>
<b>EXECUTIVE SUMMARY</b>			
	ES-9	The paragraph under Land Use starting “Airspace. Proposed Action...”	<u>3<sup>rd</sup> sentence, replace Carriozo with: “Carrizozo”</u>
<b>CHAPTER 2.0</b>			
3	2-12	Figure 2.1-3	<u>Replace with revised Figure 2.1-3. Revised figure contains minor text changes to the last sentence of the Military Operations Areas (MOAs) box.</u>
4	2-21	The paragraph starting “The environmental analysis...”	<u>Replace 5 May 2006 with: “4 May 2006.”</u>
5	2-23	Table 2.5-2	<u>17<sup>th</sup> row/1<sup>st</sup> column, replace GAF with: “German Air Force (GAF)”</u>
6	2-23	Table 2.5-2	<u>18<sup>th</sup> row/1<sup>st</sup> column, delete German Air Force (GAF) and replace with: “GAF”</u>
7	2-27	Table 2.6-1	<u>Replace 7<sup>th</sup> row/2<sup>nd</sup> column with: “New Mexico Environment Department/ Air Force”</u>
<b>CHAPTER 3.0</b>			
	3-43	The paragraph starting “Total personnel under...”	<u>Last sentence, replace 95 with: “99”</u>
	3-43	The paragraph starting “It is estimated that...”	<u>2<sup>nd</sup> sentence, replace 648 with: “674”</u>



**FIGURE 2.1-3. TYPES OF TRAINING AIRSPACE**

DRAFT EA			
<i>Errata Number</i>	<i>Page Number</i>	<i>Location</i>	<i>Errata</i>
<b>CHAPTER 4.0</b>			
10	4-1	The paragraph starting "Several Restricted Areas support..."	<u>2<sup>nd</sup> line, replace R-5103 A and B with: "R-5103 B and C"</u>
	4-11	The paragraph starting "For the Proposed Action..."	<u>1<sup>st</sup> sentence, replace 60 with: "45"</u>
11	4-24	The paragraph starting "Flare use is proposed for..."	<u>Insert at end of 2<sup>nd</sup> sentence: "and typically burns out within 400 feet of release (see Appendix B)."</u>
12	4-31	The paragraph starting "Appendix D includes..."	<u>Insert at end of paragraph: "A Cooperative Agreement for protection of the state-listed threatened White Sands pupfish was signed on July 21, 1994 by the Air Force and Army as well as other federal and state agencies. This Cooperative Agreement is formulated to delineate an effective and cooperative working relationship between its signatories in protecting and maintaining viable populations of the White Sands pupfish in its natural habitats on WSMR, Holloman AFB, and White Sands National Monument. The Proposed Action would not impact the protective measures and agency responsibilities outlined in this plan."</u>
13	4-40	The paragraph starting "The St. Joseph Apache Mission..."	<u>Insert at end of paragraph: "The Air Force has established procedures for damage claims that begin by contacting the Holloman Public Affairs Office."</u>
14	4-48	Table 4.9-1	<u>Replace 1,000 in 6<sup>th</sup> row/2<sup>nd</sup> column with: "20"</u>
15	4-48	Table 4.9-1	<u>Replace 2.0 in 6<sup>th</sup> row/3<sup>rd</sup> column with: ".05"</u>
16	4-48	Table 4.9-1	<u>Replace 500 in 6<sup>th</sup> row/4<sup>th</sup> column with: "8"</u>
17	4-48	Table 4.9-1	<u>Replace 2,000 in 6<sup>th</sup> row/5<sup>th</sup> column with: "8"</u>
18	4-51	Table 4.10-1	<u>Replace 77,000 in 3<sup>rd</sup> row/2<sup>nd</sup> column with: "77,291"</u>
<b>APPENDIX G</b>			
19	G-7	Table 1	<u>17<sup>th</sup> row/4<sup>th</sup> column after Holloman AFB add: "and WSMR"</u>

DRAFT EA			
<i>Errata Number</i>	<i>Page Number</i>	<i>Location</i>	<i>Errata</i>
APPENDIX J			
20	J-2	The paragraph starting "Stormwater, typically generated..."	Starting the 3 <sup>rd</sup> to last sentence, replace with: "Eleven of these drainage areas have been identified as contributing to distinct discharges from Holloman AFB to Waters of the U.S. (e.g., wetlands and flowing, and intermittently flowing, arroyos, creeks, or streams). Two of the remaining drainage areas discharge to depressions in the ground (located on base) where storm water evaporates or percolates into the ground. A fourteenth drainage area drains mainly by sheet flow towards isolated wetlands (Holloman AFB 2001)."

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## **2.0 COMMENTS AND RESPONSES**

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This chapter contains comments received from federal, state, and local agencies, and the general public during the public comment period for the Draft EA. The Notice of Availability (NOA) for the Draft EA appeared in the *Federal Register* on June 23, 2006. This began a 30-day comment period. In accordance with the National Environmental Policy Act (NEPA), public and agency comments were reviewed and incorporated into this Final EA. The Air Force has considered these comments in their decision making process.

### **2.1 COMMENT RECEIPT AND REVIEW**

*Comment Receipt:* Comments on the Draft EA included written correspondence received during the 30-day public comment period. All comments received during that period are included in the Comments section.

*Comment Review:* In accordance with 40 CFR 1503.4, comments were assessed and considered as follows:

- Each letter was assigned an identification number and each comment letter was read and reviewed carefully.
- Within each comment letter, substantive comments were identified and bracketed. Three guidelines were used for determining substantive comments:
  1. The comment questioned the Proposed Action, alternatives, or other project components.
  2. The methodology of the analysis or results was questioned.
  3. The use, adequacy, or accuracy of data was questioned.
- The bracketed comments were reviewed by environmental resource specialists who drafted the responses. In some cases, similar comments were assigned the same response. If the same comment was repeated within the same letter, it was bracketed the first time it appeared.
- The individual bracketed comments were assigned a response code and response number. The codes are listed on page 2-15. The responses to comments appear in the Responses section of this document.

Comment Organization: The comment letters are printed in numerical order.

### **2.2 LOCATING YOUR COMMENTS**

A directory begins on page 2-2 to locate your name or agency. An identification number was assigned to your comment letter and is printed on the letter. All comments are organized

according to these identification numbers in the comments section immediately following the directions.

The directory provides an alphabetical listing of commentors by last name. Look for your last name and note the comment identification number in the fourth column. This is a number that was assigned to your comment and is printed on your letter. Next to your comment identification number is the page number in this Final EA where you can find your comment.

## **2.3 LOCATING RESPONSES TO COMMENTS**

Air Force responses to comments are located in the responses section of this document. All substantive comments within each comment letter were given a response number. Response numbers are printed next to the bracket in the right margin of the comments. Every bracketed comment has received a response. Each response is designed to be read along with the comment it addresses. Assistance with acronyms is found on the inside back cover of this Final EA.

Here is an example of how to find your comment. Mr. Walt Coffman would look at the alphabetical directory and locate his last name. If he represented an organization, the organization would be in column three. Column four contains the identification number of his letter and the page number where he may find his comments. When he turns to page 2-5, he will see brackets to the right of each substantive comment. Comment responses begin on page 2-15.

Public and agency involvement is an important part of the NEPA process, and all comments are taken into consideration by the Air Force in its decision making process. The Air Force would like to express appreciation for your comments.

### **Alphabetical Directory**

<i>Last Name</i>	<i>First Name</i>	<i>Organization</i>	<i>Identification Number/Page Number</i>	<i>Response Numbers</i>
Chamberlain	Guillermo & Pam		0001/2-3	GE-1, SE-1
		New Mexico State Historic Preservation Office	0002/2-4	GE-1
Coffman	Walt		0003/2-5	GE-1, NP-1, NP-2
Murphy	Wally	U.S. Fish and Wildlife Service	0004/2-6	GE-1
Sherman	Todd		0005/2-8	GE-1, NO-1, NO-2
Beu	Jane	National Park Service	0006/2-9	GE-1, LU-1
Ward	Janell	New Mexico Department of Game & Fish	0007/2-11	GE-1
Moore, Ph.D.	Martin	County of Otero	0008/2-14	GE-1, SE-2



**COMMENT LETTERS**



From: Guillermo & Pamela Chamberlain



ATTENTION!  
MS. LINDA DE VINE

To: MS. Linda De Vine  
C/o SAIC  
22 Enterprise Parkway Ste 200  
Hampton, Va. 23666  
FAX 757-896-1525

GE-1

We live in the southern Sacramento Mountains in Timberon, NM. South and East of Holloman Air Force Base.

Right up front we want you to know we don't want to get a correspondence back telling us of the sight, sound or smell (jet fuel) of "Freedom"! Bottom line is \_ will the Air Force or some government agency pay the appraised value for our home? As value of our home will fall dramatically if you embark on you new expansion program. We can live anywhere, it doesn't have to be here. But we do need to receive current appraised value for our home to move on to another home else where. What with the price of homes escalating out of our price range and we are both retired, so an increase in our income is pretty much out of the question! So we rely totally on the value of this home to be able to buy another home.

SE-1

We would appreciate a response to our concerns. We hope that you do not ignore our concerns, as they are real.

Thank You  
Guillermo & Pamela Chamberlain

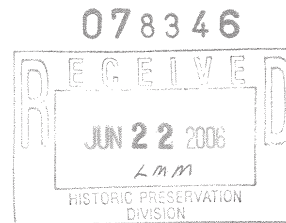


DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS AIR COMBAT COMMAND  
LANGLEY AIR FORCE BASE, VIRGINIA

Rec'd JUL 7 2006  
0002

19 June 2006

MEMORANDUM FOR Director, Historic Preservation Division  
New Mexico Office of Cultural Affairs  
Bataan Memorial Building  
407 Galisteo Street, Suite 236  
Santa Fe, NM 875501



FROM: HQ ACC/A7Z  
129 Andrews Street, Suite 102  
Langley AFB VA 23665-2769

SUBJECT: Draft Environmental Assessment Transformation of the 49th Fighter Wing,  
Holloman (AFB), New Mexico

GE-1

1. We are pleased to provide you with the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed Transformation of the 49th Fighter Wing at Holloman AF which replaces the retiring F-117A and their supporting T-38As with F-22A aircraft. This EA analyzes impacts from the proposed beddown of 36 + 4 backup F-22s and routine training in airspace within 100 miles of Holloman AFB. The proposed action includes supersonic flight and the use of training chaff and flares.

2. Request your concurrence with the Air Force's conclusion of no significant effects to cultural resources. The 30-day comment period for this action is 23 Jun – 24 Jul 2006. Please provide responses and direct inquiries on this matter to Ms. Linda DeVine, HQ ACC/A7Z C/O SAIC 22 Enterprise Parkway Suite 200 Hampton, VA 23666. Ms DeVine may be reached at (757) 896-2659 or (757) 764-9434.

This undertaking will not have an adverse effect on  
registered or eligible properties.

*[Signature]* 6/22/06  
for New State Historic Preservation Officer

*[Signature]*  
MARYANN H. CHISHOLM  
Colonel, USAF  
Chief, Programs Division

1 Attachment  
Draft EA

Global Power For America

0003

Ms. Linda Devine  
HQ ACC/A7ZP  
C/O SAIC  
22 Enterprise Parkway, Suite 200  
Hampton, VA 23666

July 11, 2006

GE-1

RE: Draft EA - Transforming the 49th FW's Combat Capability, Holloman AFB NM

Ms. Devine,

Herein are my comments to this proposed EA.

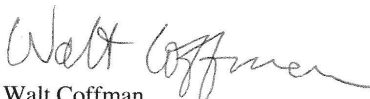
This proposal affects many rural residents. Some have not been informed of the Proposal until recently and have not had an opportunity to participate in the EA process. The Proposal is lengthy and not readily accessible to many rural residents. I request the following two actions:

1. The time period for comment be expanded 90 days to allow rural residents time to review the Proposal (see above). NP-1

2. The USAF Agency responsible for the Proposal conduct "Town Meetings" to discuss the Proposal. The best location for these meetings would be in the rural areas affected such as Weed, Mayhill or Sacramento (all in New Mexico) and perhaps Ruidoso, NM. NP-2

With the limited time allowed for comment I may have more to say as I review the many pages of the Proposal.

Sincerely,



Walt Coffman  
Rural Resident Weed, new Mexico  
Publisher "the WeedPatch"



Walt Coffman



## United States Department of the Interior

0004

FISH AND WILDLIFE SERVICE  
New Mexico Ecological Services Field Office  
2105 Osuna Road, NE  
Albuquerque, New Mexico 87113  
Phone: (505) 346-2525; Fax: (505) 346-2542

July 7, 2006

Cons. #22420-2006-I-0129

Mary Ann H. Chisholm  
Colonel, USAF  
Chief, Programs Division  
HQ ACC/A77  
129 Andrews Street, Suite 102  
Langley AFB, Virginia 23665-2769

Dear Ms. Chisholm:

GE-1

Thank you for providing your June 19, 2006, environmental assessment for Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability Project. The U. S. Air Force proposes to transform the 49<sup>th</sup> fighter wing from its F-177A low-observability penetration role to the next generation F-22A with multiple capabilities that exceed those of the F-117A. The proposal is to replace 50 F-117A and associated 14 T-38A trainer aircraft with two squadrons of F-22A aircraft. Each F-22A squadron would consist of 18 primary assigned aircraft and two backup aircraft. F-22A training would include air-to-ground exercises similar to that performed by the F-117A, plus air-to-air training. Training would occur within 100 nautical miles of Holloman Air Force Base, New Mexico, including supersonic activities and the use of chaff and flares over White Sands Missile Range, and flares above 2,000 feet above ground level in all airspace.

Your letter requesting consultation for the proposed project and its effects on listed species in New Mexico was received by the U. S. Fish and Wildlife Service (Service) on June 22, 2006. The U.S. Air Force has determined that proposed project "may affect, is not likely to adversely affect" the threatened bald eagle (*Haliaeetus leucocephalus*), the threatened Mexican spotted owl (owl) (*Strix occidentalis lucida*) and its designated critical habitat, the endangered southwestern willow flycatcher (flycatcher) (*Empidonax traillii extimus*), and the endangered northern aplomado falcon (falcon) (*Falco femoralis septentrionalis*).

We concur that the proposed action "may affect, is not likely to adversely affect" the bald eagle, the owl and its designated critical habitat, the flycatcher, and the falcon because: 1) habitat for the southwestern willow flycatcher does not exist in the designated airspace; 2) owls are expected to habituate and react to noise disturbance (sonic booms) in similar fashion as they react to thunder; 3) no owl critical habitat primary constituent elements would be affected; 4) there are no known bald eagle nests under the proposed airspace; 5) the F-22A would fly in excess of 3,000 feet above ground level over the owl protected activity centers and bald eagle wintering or roosting areas; 6) the falcon has been infrequently observed in the project area and has not been known to breed in the south-central New Mexico project region since the early 1950s; 7) the nearest known breeding population for the falcon is in northern Chihuahua, Mexico, about 125 miles south of Fort Bliss, Texas; and 8) falcon habitat is primarily concentrated around U.S. Highways 285 and 82, in Eddy County, and east of U.S. Highway 54

Mary Ann H. Chisholm

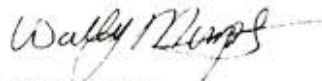
2

south of Alamogordo (Otero County). For these reasons, the effects to the flycatcher, the bald eagle, the falcon, and the owl and its critical habitat are considered insignificant and discountable.

Please contact the Service if: 1) future surveys detect listed or proposed species in habitats where they have not been previously observed; 2) the project is changed or new information reveals effects of the proposal to listed species that have not been considered in this analysis; or 3) a new species is listed or critical habitat designated that may be affected by the action.

We appreciate the analyses provided in the letter and the BA and your efforts to protect endangered and threatened species. In future communications regarding this project, please refer to Consultation # 22410-2006-1-0129. If we can be of further assistance, please contact Santiago R. Gonzales of my staff at 505/761-4755.

Sincerely,



Wally Murphy  
Acting Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, NM

Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division,  
Santa Fe, NM

0005

Todd Sherman

12 July 2006

GE-1

Ms. Linda DeVine,

I am writing to express my strong feelings against the proposed increase in the number of sonic booms expected from the use of F-22A fighter aircraft scheduled to be based at Holloman AFB, NM by 2008. Being a home owner in Alamogordo, I can tolerate the present average of 1 sonic boom a month. However, to increase that average to 30 sonic booms a month (or 1 a day) is quite unreasonable. Is the Air Force going to replace my windows that break as a result of those sonic booms? Also, the effects of sonic booms on the rest of my house and foundation worry me as well. No one enjoys being constantly startled by the sudden sonic boom and the house's violent shaking.

NO-1

The speed of the F-22A aircraft should be limited in the vicinity of Alamogordo and Holloman AFB to below the speed of sound; they can achieve their top speed when they reach the designated practice ranges far from town and base.

NO-2

Thank you.

Sincerely,

*Todd Sherman*





## United States Department of the Interior

National Park Service

Midwest Region  
601 Riverfront Drive  
Omaha, Nebraska 68102-4226



0006

650.2(MWR-P/G)

JUL 12 2008

Ms. Linda DeVine  
c/o SAIC  
22 Enterprise Parkway, Suite 200  
Hampton, Virginia 23666

RE: Draft Environmental Assessment for Transforming the 49<sup>th</sup> Fighter  
Wing's Combat Capability

Dear Ms. DeVine:

GE-1

Thank you for the opportunity to review the subject document. We have reviewed this project in relation to any possible conflicts with the Land and Water Conservation Fund (L&WCF) program and find that there are numerous L&WCF projects in the counties affected by this proposed project.

We recommend you consult directly with the official who administers the L&WCF program in the State of New Mexico to determine any potential conflicts with Section 6(f)(3) of the L&WCF Act (Public Law 88-578, as amended). This section states: "No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of the Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location."

LU-1

The administrator for the L&WCF program in New Mexico is Ms. Sandra Massengill, New Mexico State Parks, Energy, Minerals and Natural Resources Division, Post Office Box 1147, Santa Fe, New Mexico 87504. Ms. Massengill's telephone number is 505-827-3558.



Again, we appreciate the opportunity to review this document. If you have any questions or concerns regarding these comments, you may contact me at 402-661-1544.

Sincerely,



Jane G. Beu  
Outdoor Recreation Planner

cc:

Ms. Sandra Massengill  
New Mexico State Parks Division  
Energy, Minerals & Natural Resources Division  
P.O. Box 1147  
Santa Fe, New Mexico 87504

GOVERNOR  
Bill Richardson



DIRECTOR AND SECRETARY  
TO THE COMMISSION  
Bruce C. Thompson, Ph.D.

Tod Stevenson, Deputy Director

## STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

One Wildlife Way  
Post Office Box 25112  
Santa Fe, NM 87504  
Phone: (505) 476-8101  
Fax: (505) 476-8128

Visit our website at [www.wildlife.state.nm.us](http://www.wildlife.state.nm.us)  
For basic information or to order free publications: 1-800-862-9310.

### STATE GAME COMMISSION

Leo V. Sims, II, Chairman  
Hobbs, NM

Dr. Tom Arvas, Vice-Chairman  
Albuquerque, NM

David Handerson, Commissioner  
Santa Fe, NM

Alfredo Montoya, Commissioner  
Alcalde, NM

Peter Pino, Commissioner  
Zia Pueblo, NM

Terry Z. Riley, Ph.D., Commissioner  
Tijeras, NM

M. H. "Dutch" Salmon, Commissioner  
Silver City, NM

July 24, 2006

Linda DeVine  
c/o SAIC  
22 Enterprise Parkway Suite 200  
Hampton, VA 23666

GE-1

Re: Draft Environmental Assessment for Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability  
NMGF No. 10916

Dear Ms. DeVine,

In response to your letter dated June 19, 2006, regarding the above referenced project, the Department of Game and Fish (Department) does not anticipate significant impacts to wildlife or sensitive habitats. For your information, we have enclosed a list of sensitive, threatened and endangered species that occur in Otero County.

For more information on listed and other species of concern, contact the following sources:

1. BISON-M Species Accounts, Searches, and County lists: <http://www.bison-m.org>
2. Habitat Handbook Project Guidelines:  
[http://wildlife.state.nm.us/conservation/habitat\\_handbook/index.htm](http://wildlife.state.nm.us/conservation/habitat_handbook/index.htm)
3. For custom, site-specific database searches on plants and wildlife. Go to Data then to Free On-Line Data and follow the directions go to: <http://nmahp.unm.edu>
4. New Mexico State Forestry Division (505-827-5830) or <http://nmrareplants.unm.edu/index.html> for state-listed plants
5. For the most current listing of federally listed species always check the U.S. Fish and Wildlife Service at (505-346-2525) or <http://www.fws.gov/lfw2es/NewMexico/index.cfm>.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Mark Watson, Habitat Specialist, at (505) 476-8101 or [mark.watson@state.nm.us](mailto:mark.watson@state.nm.us).

Sincerely,

Janell Ward, Assistant Chief  
Conservation Services Division

JW/ttd

xc: Wally Murphy, Acting Ecological Services Field Supervisor, USFWS  
Roy Hayes, SE Area Operations Chief, NMGF  
George Farmer, SE Area Habitat Specialist, NMGF

0007

## NEW MEXICO WILDLIFE OF CONCERN OTERO COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at <http://www.fws.gov/fw2es/NewMexico/SBC.cfm>. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to <http://nmrareplants.unm.edu/>. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information.

<u>Common Name</u>	<u>Scientific Name</u>	<u>NMGF</u>	<u>US FWS</u>	<u>critical habitat</u>
Rio Grande Cutthroat Trout	<i>Oncorhynchus clarki</i>	s	SOC	
Rio Grande Chub	<i>Gila pandora</i>	s		
White Sands Pupfish	<i>Cyprinodon tularosa</i>	T	SOC	
Sacramento Mountain Salamander	<i>Aneides hardii</i>	T	SOC	
Bleached Earless Lizard	<i>Holbrookia maculata ruthveni</i>	s		
Southwestern Fence Lizard	<i>Sceloporus cowlesi</i>	s		
Little White Whiptail	<i>Aspidoscelis gypsi</i>	s		
Mottled Rock Rattlesnake	<i>Crotalus lepidus lepidus</i>	T		
Brown Pelican	<i>Pelecanus occidentalis</i>	E		
Neotropic Cormorant	<i>Phalacrocorax brasilianus</i>	T		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	T	
Northern Goshawk	<i>Accipiter gentilis</i>	s	SOC	
Common Black-Hawk	<i>Buteogallus anthracinus</i>	T	SOC	
Aplomado Falcon	<i>Falco femoralis</i>	E	E	
Peregrine Falcon	<i>Falco peregrinus</i>	T	SOC	
Mountain Plover	<i>Charadrius montanus</i>	s	SOC	
Least Tern	<i>Sterna antillarum</i>	E	E	
Black Tern	<i>Chlidonias niger surinamensis</i>		SOC	
Common Ground-Dove	<i>Columbina passerina</i>	E		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	s	SOC	
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	s	T	Y
Burrowing Owl	<i>Athene cunicularia</i>		SOC	
Black Swift	<i>Cypseloides niger</i>	s		
Broad-billed Hummingbird	<i>Cynanthus latirostris</i>	T		
White-eared Hummingbird	<i>Hylocharis leucotis</i>	T		
Elegant Trogon	<i>Trogon elegans</i>	E		
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	E	Y
Loggerhead Shrike	<i>Lanius ludovicianus</i>	s		
Bell's Vireo	<i>Vireo bellii</i>	T	SOC	
Gray Vireo	<i>Vireo vicinior</i>	T		
Baird's Sparrow	<i>Ammodramus bairdii</i>	T	SOC	
Varied Bunting	<i>Passerina versicolor</i>	T		
Western Small-footed Myotis Bat	<i>Myotis ciliolabrum melanorhinus</i>	s		
Occult Little Brown Myotis Bat	<i>Myotis lucifugus occultus</i>	s		
Cave Myotis Bat	<i>Myotis velifer</i>	s		
Long-legged Myotis Bat	<i>Myotis volans interior</i>	s		
Fringed Myotis Bat	<i>Myotis thysanodes thysanodes</i>	s		
Spotted Bat	<i>Euderma maculatum</i>	T		
Pale Townsend's Big-eared Bat	<i>Corynorhinus townsendii pallescens</i>	s	SOC	
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	s		

Penasco Least Chipmunk	Neotamias minimus atristriatus	E	SOC
Gray-footed Chipmunk	Neotamias canipes sacramentoensis	S	
Black-tailed Prairie Dog	Cynomys ludovicianus ludovicianus	S	SOC
Red Squirrel	Tamiasciurus hudsonicus lynchus	S	
Desert Pocket Gopher	Geomys arenarius	S	SOC
South Plains Wood Rat	Neotoma micropus leucophaea		SOC
New Mexican Jumping Mouse	Zapus hudsonius luteus	T	SOC
Western Spotted Skunk	Spilogale gracilis	S	
Common Hog-nosed Skunk	Conepatus leuconotus	S	
Socorro Mountainsnail	Oreohelix neomexicana	S	
Cloudcroft Checkerspot Butterfly	Euphydryas anicia cloudcrofti	S	



Email oteroadm@co.otero.nm.us  
COMMISSION / ADMINISTRATION  
(505) 437-7427  
FAX (505) 443-2904



1000 NEW YORK AVE., RM 101  
ALAMOGORDO, NM 88310-6835

State of New Mexico  
County of Otero

July 24, 2006

Ms. Linda Devine  
c/o SAIC  
22 Enterprise Parkway, Suite 200  
Hampton, VA 23666

GE-1

Re: Draft Environmental Assessment transforming the 49<sup>th</sup> Fighter Wing's Combat Capability

Dear Ms. Devine:

The following comment addresses an issue of concern that we have identified in the Draft Environmental Assessment: Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability.

While the movement to transform the 49<sup>th</sup> Fighter Wing to the F-22A eases the anxiety of total base closure, we are concerned that the Draft Environmental Assessment projects a total loss of 321 primary and 99 secondary jobs. The loss of these jobs will result in lower retail sales, higher housing vacancy rates, and other adverse social and economic impacts to the human environment. To address these impacts, we request a meeting to discuss mitigation measures (including additional missions at Holloman Air Force Base) to protect and enhance the local history, custom, culture, social environment and economy.

SE-2

Thank you for this opportunity to comment. We pledge our ongoing support for your efforts to insure the continued operational viability of Holloman Air Force Base.

Sincerely,

  
Martin D. Moore, Ph.D.  
Otero County Administrator

sec

**RESPONSES**





### Response Codes

GE – General  
 NP – National Environmental Policy Act  
 NO – Noise  
 LU – Land Use  
 SE – Socioeconomics

### Responses to Comments on the Draft EA

<i>Identification Number</i>	<i>Response Number</i>	<i>Response</i>
0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008	GE-1	The United States Air Force (Air Force) appreciates your input during the comment period on the Draft Environmental Assessment (EA). All comments received during this comment period are included in the Final EA and will contribute to the decision making process. All requestors will be provided a copy of the Final EA.
0003	NP-1	The public has had several opportunities to provide comments during both the scoping and public comment phases which began in April 2006 and ended in July 2006.
0003	NP-2	Public meetings were held on 17 April in Ruidoso, 18 April in Truth or Consequences, and 19 April 2006 in Alamogordo. Notices of the meetings were published in the local newspapers before their scheduled dates as follows: The Sentinel, April 5, 2006; Ruidoso News, April 7, 2006; Alamogordo Daily News, April 9, 2006; Las Cruces Sun-News, April 9, 2006; The Sunburst, April 14, 2006; The Chieftain, April 14, 2006. The notice of availability of the document was also published in those same papers.
0005	NO-1	In case of damage, the Air Force has established procedures for handling damage claims, which begins by contacting the Holloman Air Force Base (AFB) Public Affairs Office at 505-572-5406. Over 75 percent of the proposed F-22A operations will be above 30,000 feet and the boom overpressures would be minimal (like distant thunder).
0005	NO-2	No changes are proposed for the Class C or D airspace (below Flight Level [FL] 230 [23,000 feet MSL]) assigned for Holloman AFB's Radar Approach Control (RAPCON). This controlled airspace lies directly over Holloman AFB and the City of Alamogordo, and aircraft would continue to fly subsonic only in that airspace. The proposed expanded Cowboy Air Traffic Control Assigned Airspace (ATCAA) lies directly over the City of Alamogordo and would permit supersonic flight activity above FL230. This airspace is necessary to meet the operational requirements of the F-22. The average sonic boom overpressure for this type of activity is approximately 1 pound per square foot (psf) and would not pose a health or other risk, although the percent of people highly annoyed is expected to increase. While overpressures of this magnitude could damage glass and plaster or vibrate shelves, at 1 psf, the probability of a window breaking ranges from one in a billion to one in a million. Should you experience damage, contact the Holloman Public Affairs Office for procedures to handle you damage claim.

<i>Identification Number</i>	<i>Response Number</i>	<i>Response</i>
0006	LU-1	The Air Force has contacted the representative recommended by the Department of Interior and they have verbally concurred with no effects on the Land and Water Conservation Fund (L&WCF) program. Impacts to land use and recreation are discussed in the Draft EA, Section 4.8.
0001	SE-1	<p>The EA for the Transformation of the 49<sup>th</sup> Fighter Wing (49 FW) locates the Lincoln National Forest on Draft EA Figure 4.8-2, page 4-44. Page 4-48 and 4-49 explains that the expansion area for the Cowboy ATCAA in that area would have a floor of FL 230 (or 23,000 feet above mean sea level [MSL]). This is approximately 2.5 miles above Mule Peak and over 3 miles above most of the Sacramento Mountains area in the vicinity of Timberon. There would be no fuel smell from such high flying aircraft, and there would be few cases of sighting the aircraft, except for contrails.</p> <p>As noted on page 4-8 of the Draft EA, the annual average subsonic noise associated with F-22A training would be below 55 decibels (dB). Draft EA Figure 4.2-2 on page 4-13 demonstrates that there would be approximately 10 sonic booms per month in the Timberon area. The sonic booms could vary from a distant thunder sound to a double crack, depending on altitude, speed, and maneuvering of the aircraft. Socioeconomic consequences of sonic booms are described in Section 4.9.2 of the Draft EA. Most training aircraft would be flying above 30,000 feet MSL and would be expected to reduce the potential for sonic boom effects.</p> <p>The transformation proposal does not stipulate any changes in economic use of land underlying the airspace, nor is the proposed action or any alternative expected to adversely impact the economic use of these lands. Given the altitude of the aircraft, there is little evidence to suggest that the proposed changes in airspace or the noise environment could affect property values. In rare cases of a specific damage claim associated with a sonic boom, the Air Force has established procedures to handle the claim that begin by contacting the Holloman AFB Public Affairs Office.</p> <p>There is no basis to believe that the F-22A training would detract from or diminish the value of private property under the existing or expanded Cowboy ATCAA.</p>
0008	SE-2	While Socioeconomic impacts caused by Air Force actions do not require mitigation, a meeting will be scheduled between Holloman Leadership and the County to discuss the issue.

## **APPENDIX A DISTRIBUTION LIST**



## Final EA Distribution

<i>Last Name</i>	<i>First Name</i>	<i>Title</i>	<i>Organization Name</i>	<i>Division</i>	<i>Address Line 1</i>	<i>Address Line 2</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
Adair	The Honorable Rod	Senator	New Mexico Senate		State Capitol, Room 416D		Santa Fe	NM	87503
Altamirano	The Honorable Ben D.	Senator	New Mexico Senate		1123 Santa Rita Street		Silver City	NM	88061
Asbill	The Honorable Vernon	Senator	New Mexico Senate		1502 Mountain Shadow		Carlsbad	NM	88220
Austin, M.D.	Arthur		Gerald Champion Regional Medical Center		46 High Sierra Dr.		Alamogordo	NM	88310
Baca	Tom	Aviation Director	New Mexico Aviation Division		1550 Pacheco Street		Santa Fe	NM	87505-1149
Barnes	The Honorable Bob	Mayor	City of Elephant Butte		PO Box 1080		Elephant Butte	NM	87935
Bhasker	The Honorable Ravi	Mayor	City of Socorro		PO Box K	111 School of Mines Road	Socorro	NM	87801
Bingaman	The Honorable Jeff	U.S. Senator			148 Loretto Towne Centre	505 South Main, Suite 148	Las Cruces	NM	88001
Brabson	Ed		Committee of 50				Alamogordo	NM	88310-6474
Bullock	Peter	NEPA Customer Support Div	Environment and Safety Directorate	Attn: WSM-ES- C			White Sands Missile Range	NM	88002-5000
Burrus	James		FAA-ZAB		12701 Osito Court		Albuquerque	NM	87111
Burt	Bill		Committee of 50				Alamogordo	NM	88311
Cadena	The Honorable Michael	Mayor	Town of Mesilla		PO Box 10		Mesilla	NM	88046
Campos	The Honorable Jose A.	Representative	New Mexico House of Representatives		State Capitol, Room 204B		Santa Fe	NM	87503
Campos	The Honorable Pete	Senator	New Mexico Senate		State Capitol, Room 302B		Santa Fe	NM	87503
Carroll	Donald E.	Mayor/ Commissioner	Alamogordo City Commission		1515 Arizona Avenue		Alamogordo	NM	88310

## Final EA Distribution

<i>Last Name</i>	<i>First Name</i>	<i>Title</i>	<i>Organization Name</i>	<i>Division</i>	<i>Address Line 1</i>	<i>Address Line 2</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
Chamberlain	Guillermo & Pamela						Timberon	NM	88350
Chino	Mark	President	Mescalero Apache Tribe		101 Central		Mescalero	NM	88340
Coffman	Walt						Weed	NM	88354
Collins	The Honorable John	Mayor	Village of Hope		PO Box 1476		Hope	NM	88250
Curry	Ron	Cabinet Secretary	New Mexico Environment Department		Harold S. Runnels Building	1190 St Francis Drive	Santa Fe	NM	87505
Dehart	Clyde	ASW-900/ AF Representative	Federal Aviation Administration	Southwest Region			Fort Worth	TX	76193-0001
Domenici	The Honorable Pete	U.S. Senator			505 South Main Street, Suite 118		Las Cruces	NM	88001
Donahue-Hooker	Mary Kaye	Director	El Paso Public Library		501 N. Oregon		El Paso	TX	79901
Duran	The Honorable Dianna	Senator	New Mexico Senate		909 8th Street		Tularosa	NM	88352
Ezzell	The Honorable Candy Spence	Representative	New Mexico House of Representatives		Box 2125		Roswell	NM	88202
Farquhar	Ned	NM SPOC	Energy and Environmental Policy Advisor		State Capitol Building, Suite 400		Santa Fe	NM	87501
Ferrell	Charles	Chair	Committee of Fifty				Tularosa	NM	88352
Fidel	The Honorable Joseph	Senator	New Mexico Senate		PO Box 968		Grants	NM	87020
Foley	The Honorable Daniel R.	Representative	New Mexico House of Representatives		57 North Sky Loop		Roswell	NM	88202
Forrest	The Honorable Bob	Mayor	City of Carlsbad		101 N Halagueno		Carlsbad	NM	88221
Garcia	The Honorable Mary Jane	Senator	New Mexico Senate		PO Box 22		Dona Ana	NM	88032
Gardiner	John		Committee of 50				Alamogordo	NM	88310
Gardner	The Honorable Keith J.	Representative	New Mexico House of Representatives		4500 Verde Drive		Roswell	NM	88201



## Final EA Distribution

<i>Last Name</i>	<i>First Name</i>	<i>Title</i>	<i>Organization Name</i>	<i>Division</i>	<i>Address Line 1</i>	<i>Address Line 2</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
George	Karen		New Mexico State University, Branson Library		1305 Frenger Mall		Las Cruces	NM	88003
Gilley	The Honorable Velta	Mayor	Town of Mountainair		107 N Roosevelt Avenue		Mountainair	NM	87036
Gonzales	Dr. Miley	Secretary of Agriculture	New Mexico Department of Agriculture		Box 30005, Dept 3189		Las Cruces	NM	88003-8005
Gulley	Linda		State Farm Insurance		101 N. White Sands Blvd.		Alamogordo	NM	88310
Harbaugh	Ellen	Library Director	Carlsbad Municipal Library		101 S. Halagueno		Carlsbad	NM	88220
Harden	The Honorable Clinton D.	Senator	New Mexico Senate		State Capitol, Room 416E		Santa Fe	NM	87503
Hein	Eric	Acting Field Supervisor	U.S. Fish and Wildlife Service	New Mexico Ecological Services	2105 Osuna NE		Albuquerque	NM	87113
Helfert	Steve	DoD Liaison	USFWS		500 Gold Avenue, SW		Albuquerque	NM	87102
Hernandez	The Honorable Manuel	Mayor	Town of Carrizozo		400 9th Street		Carrizozo	NM	88301
Hosier	Clinette		Federal Aviation Administration		8000 Louisiana Blvd NE		Albuquerque	NM	87109
Ingle	The Honorable Stuart	Senator	New Mexico Senate		State Capitol, Room 109A		Santa Fe	NM	87503
Jackson	The Honorable Carol Sue	Mayor	Village of Williamsburg		PO Box 150		Williamsburg	NM	87942
Jennings	The Honorable Timothy Z.	Senator	New Mexico Senate		PO Box 1797		Roswell	NM	88201
Johnson, PhD	Kristine	Director	New Mexico State Heritage Program		UNM Biology Dept., MSC03 2020	1 U of NM	Albuquerque	NM	87131
Kalinowski	Nancy		Federal Aviation Administration	System Operations and Safety	800 Independence Avenue, Room 400E		Washington	DC	20591

## Final EA Distribution

<i>Last Name</i>	<i>First Name</i>	<i>Title</i>	<i>Organization Name</i>	<i>Division</i>	<i>Address Line 1</i>	<i>Address Line 2</i>	<i>City</i>	<i>State</i>	<i>Zip</i>
Kernan	The Honorable Gay	Senator	New Mexico Senate		State Capitol, Room 415E		Santa Fe	NM	87503
King	The Honorable Rhonda	Representative	New Mexico Legislature		PO Box 103		Stanley	NM	87056
Madrid	The Honorable Manuel	Mayor	City of Artesia		PO Box 1310		Artesia	NM	88211
Marquardt	The Honorable Dr. Terry T.	Representative	New Mexico House of Representatives		903 New York Avenue		Alamogordo	NM	88310
Mattiace	The Honorable Bill	Mayor	City of Las Cruces		200 N Church Street		Las Cruces	NM	88001
McGinn	Clarissa	Commissioner	Otero County Commission		1000 New York Avenue, Room 101		Alamogordo	NM	88310
Miller	Paul		Alamogordo Public Library		920 Oregon		Alamogordo	NM	88310
Miller	The Honorable Bob	Mayor	City of Ruidoso Downs		PO Box 348		Ruidoso Downs	NM	88346
Montoya	The Honorable Demeterio	Mayor	Village of Tularosa		705 St Francis Drive		Tularosa	NM	88352
Nava	The Honorable Cynthia	Senator	New Mexico Senate		3002 Broadmoor		Las Cruces	NM	88001
Nordyke	The Honorable Judd	Mayor	City of Hatch		PO Box 250		Hatch	NM	87937
Nunley	The Honorable L. Ray	Mayor	Village of Ruidoso		PO Box 459		Ruidoso	NM	88355
Owen	The Honorable Bill	Mayor	City of Roswell		425 N Richardson Avenue		Roswell	NM	88201
Papen	The Honorable Mary Kay	Senator	New Mexico Senate		904 Conway Avenue		Las Cruces	NM	88005
Pearce	The Honorable Steve	U.S. Representative			400 N Teshor Drive, Suite E		Las Cruces	NM	88011
Pigg	James						Las Cruces	NM	88011
Rainey	The Honorable Jimmy	Mayor	City of Truth or Consequences		505 Sims Street		Truth or Consequences	NM	87901

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Rawson	The Honorable Leonard Lee	Senator	New Mexico Senate		PO Box 996		Las Cruces	NM	88004
Rennie	Thom		Air Force Center for Environmental Excellence		Regional Environmental Office	525 S Griffin Street, Ste 505	Dallas	TX	75202
Richardson	The Honorable Bill	Governor	State of New Mexico		Office of the Governor	State Capital Building	Santa Fe	NM	87503
Riggs	Andrew		Committee of 50				Alamogordo	NM	88310
Schlarb	P. Carol	Town Clerk	Town of Carrizozo		400 9th St.		Carrizozo	NM	88301
Scott	Brigadier General, USAF (Ret.)	Director	Office of Military Base Planning & Support		Joseph M. Montoya Building, Room 1060	1100 St Francis Drive	Santa Fe	NM	87505
Scruggs	David		Department of the Army	US Army Garrison	100 HQ Avenue	Building 163 Attn: IMSW-WSM-PW-E-C	White Sands Missile Range	NM	88002-5000
Sederwall	The Honorable Steve	Mayor	City of Capitan		PO Box 246		Capitan	NM	88316
Semanek	John		Federal Aviation Administration		8000 Louisiana Blvd NE		Albuquerque	NM	87109
Sherman	Todd						Holloman AFB	NM	88330
Sivinski	Bob		New Mexico Parks and Recreation Division	Forestry Resources Conservation Division	1220 St Francis Drive		Santa Fe	NM	87504-1948
Skeen	The Honorable Mary	Representative	New Mexico House of Representatives		P.O. Box 67		Picacho	NM	88343
Skinner	Nancy	Chief	National Park Service		PO Box 728		Santa Fe	NM	87504
Slick	Kak	Director	New Mexico Office of Cultural Affairs	Historic Preservation Division	Bataan Memorial Building	407 Galisteo St.	Santa Fe	NM	87501

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Smith	The Honorable John Arthur	Senator	New Mexico Senate		PO Box 998		Deming	NM	88031
Snyder	Mike	Regional Director	National Park Service	Intermountain Region	12795 Alameda Pkwy		Denver	CO	80225
Spencer	Stephen	Environmental Officer	U.S. Department of Interior, Office of Secretary	Regional Environmental Office	U.S. Department of Energy	P.O. Box 26567 (MC-9)	Albuquerque	NM	87125-6569
Spencer	Cliff	Park Superintendent	White Sands National Monument		PO Box 1086		Holloman AFB	NM	88330
Stell	The Honorable Joe	Representative	New Mexico House of Representatives		22 Colwell Ranch Road		Carlsbad	NM	88220
Stewart, Jr	The Honorable Gilbert	Mayor	Village of Corona		PO Box 37		Corona	NM	88318
Stubblefield	Joyce		US Environmental Protection Agency	Region 6 Office of Planning and Coordination (6EN-XP)	1445 Ross Avenue		Dallas	TX	75202-2733
Terry	Nan		FAA		2601 Meachem Blvd		Fort Worth	TX	76137
Tripp	The Honorable Don	Representative	New Mexico Legislature		PO Box 1369		Socorro	NM	87801
Tuggle	Dr. Benjamin	Regional Director	US Fish and Wildlife Service	Region 2	500 Gold Avenue SW		Albuquerque	NM	87102
Venable	The Honorable David C.	Mayor	Village of Cloudcroft		PO Box 554		Cloudcroft	NM	88317
Vigil	The Honorable Richard	Representative	New Mexico Legislature		PO Box 456		Ribera	NM	87560
Wedum	Ellen				PO Box 1086		Cloudcroft	NM	88317
Williams	W.C. "Dub"	Representative	New Mexico House of Representatives		HC 66, Box 10		Glencoe	NM	88324
Wilson	The Honorable Heather	U.S. Representative			20 First Plaza NW, Ste 603		Albuquerque	NM	87102

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			Artesia Public Library		306 W. Richardson		Artesia	NM	88210
			Branigan Memorial Library		Senior Reference Librarian	200 E. Picacho	Las Cruces	NM	88001
		Regional Director	Bureau of Indian Affairs Intermountain Region		PO Box 26567		Albuquerque	NM	87125
		Public Contact Rep	Bureau of Land Management	Las Cruces District Office	1800 Marquess Street		Las Cruces	NM	88005
			Cloudcroft Library		P.O. Box 515		Cloudcroft	NM	88317
			Dona Ana Community College		Attn: Library	3400 S. Espina	Las Cruces	NM	88003
			El Paso Community College, Northwest Center		Attn: Library	6701 S. Desert Blvd.	El Paso	TX	79835
			El Paso Community College, Rio Grande Campus		Attn: Library	100 W. Rio Grande Ave.	El Paso	TX	79902
			El Paso Community College, Transmountain Campus		Attn: Library	919 Hunter	El Paso	TX	79902
			Holloman AFB Library		596 4th St.		Holloman AFB	NM	88330
			Mescalero Community Library		148 Cottonwood Dr.		Mescalero	NM	88340
			National Park Service	White Sands National Monument	PO Box 1086		Holloman AFB	NM	88330

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			National Technical Information Service		5285 Port Royal Rd.		Springfield	VA	22151-2103
			Natural Resources Conservation Service		6200 Jefferson NE		Albuquerque	NM	87109-3734
		Director	New Mexico Department of Parks and Recreation		PO Box 1147		Santa Fe	NM	87501
		Chief	New Mexico Dept. of Game & Fish	Conservation Services Division	PO Box 25112		Santa Fe	NM	87504
		Director	New Mexico Dept. of Game & Fish		PO Box 25112		Santa Fe	NM	87504
		Regional Director	New Mexico Farm and Livestock		89 Las Flores Drive		Roswell	NM	88203
			New Mexico Parks and Recreation Division	Dept. of Energy, Minerals and Natural Resources	1220 St Francis Drive		Santa Fe	NM	87505
			New Mexico State Land Office		PO Box 1148		Santa Fe	NM	87504-1148
			New Mexico State University Alamogordo		Attn: Library	2400 Scenic Alamogordo Dr.		NM	88310
			NPS-2225, Recreation Programs Division		1849 C Street NW		Washington	DC	20240
		Director	Office of Environmental Policy and Compliance	Department of the Interior	1849 C Street NW, M/S 2342		Washington	DC	20240
			Ruidoso Public Library		107 Kansas City Rd.		Ruidoso	NM	88345

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			Truth or Consequences Public Library		325 Liberty Ln.		Truth or Consequences	NM	87901
		Regional Forester	U.S. Department of Agriculture	Forest Service	333 Broadway SE		Albuquerque	NM	87102
		Forest Supervisor	U.S. Department of Agriculture	Forest Service	Lincoln National Forest	1101 New York Avenue	Alamogordo	NM	88310
		State Director	U.S. Department of the Interior	Bureau of Land Management	PO Box 27115		Santa Fe	NM	87502
		San Andres NWR	U.S. Fish & Wildlife Service		PO Box 756		Las Cruces	NM	88004
			USDA Forest Service		1400 Independence Ave., SW		Washington	DC	20250-0003

## ACRONYMS AND ABBREVIATIONS

49 FW	49 <sup>th</sup> Fighter Wing
AFB	Air Force Base
AGL	above ground level
Air Force	United States Air Force
ATCAA	Air Traffic Control Assigned Airspace
BAI	Backup Aircraft Inventory
BASH	Bird-Aircraft Strike Hazard
BMP	Best Management Practice
CD	compact disc
CFR	Code of Federal Regulations
dB	decibel
EA	Environmental Assessment
ERP	Environmental Restoration Program
FAA	Federal Aviation Administration
FL	Flight Level
L&WCF	Land and Water Conservation Fund
L <sub>dn</sub>	Day/Night Average Sound Level
L <sub>dnmr</sub>	Onset Rate Adjusted Day/Night Average Sound Level
MOA	Military Operations Area
MSL	mean sea level
MTR	Military Training Route
NEPA	National Environmental Policy Act
nm	nautical mile
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination
PAI	Primary Aircraft Inventory
psf	pounds per square foot
S&I	Safe and Initiation
SWPPP	Storm Water Pollution Prevention Plan System
U.S.	United States
USEPA	United States Environmental Protection Agency
WSMR	White Sands Missile Range



This CD contains the Final Environmental Assessment (EA) Transforming the 49<sup>th</sup> Fighter Wing's Combat Capability (August 2006) and the Draft EA (June 2006). To view the EA on CD, you will need Adobe Acrobat® Reader. If you do not already have Adobe Acrobat® Reader, you can download it at [www.adobe.com](http://www.adobe.com).

To review the EA:

- Insert the CD in your computer's CD drive and double-click on either the Final or Draft file in the CD directory.
- Either scroll through the document or click on a heading in the Table of Contents and it will take you to that section.

The CD files are read-only, which means you may view and/or print them from the CD. If you would like to view a printed copy of the Draft EA, it is available for review at the Alamogordo Public Library; Artesia Public Library; Branigan Memorial Library; Cloudcroft Library; Doña Ana Community Library; El Paso Community College, Northwest Center; El Paso Community College, Rio Grande Campus; El Paso Community College, Transmountain Campus; El Paso Public Library; Holloman Air Force Base Library; Las Cruces Public Library; Mescalero Community Library; National Technical Information Service; New Mexico State University; New Mexico State University Alamogordo; Ruidoso Public Library; Truth or Consequences Public Library; and Village of Carrizozo.

For additional information, contact Holloman AFB Public Affairs at 505-572-5406.